

Effect of Social Media on Arabic Language Attrition

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Abstract

This study investigates the effect of Facebook on Arabic language attrition, i.e., decrease in language proficiency, as exhibited in the use of Colloquial instead of Standard Arabic, use foreign words although Arabic equivalents exist, and committing spelling errors. A sample of Facebook posts and a corpus of spelling errors on Facebook were randomly selected and analyzed. Samples of college students and instructors were surveyed to find out the reasons for this new socio-linguistic phenomenon. It was found that most educated adult Facebook users use slang and Colloquial language. Some Arabic posts are fully Romanized rather than written in Arabic script. English words are transliterated and inserted in Arabic posts. Many adult Facebook users completely ignore Standard Arabic spelling rules. They spell words the way they pronounce them in their own dialects. Users do not seem to recognize word boundaries, cannot connect phonemes with the graphemes they represent and cannot distinguish vowel length. Participants reported that it is easier for them to express themselves in slang and Colloquial Arabic. They feel they are conversing with others, not writing. Therefore, they write the way they speak and do not think about spelling and grammar. Results and recommendations are given in detail.

Keywords: *social media, Arabic language attrition, Arabic language deterioration, language change, language proficiency decline.*

Introduction

Arabic is the official language of 22 Arab countries extending from the Gulf States and Iraq in the east to Morocco and Mauritania in the West. It is the mother tongue of more than 400 million and many Muslims, who are none-native speakers of Arabic, learn Arabic as a second or foreign language as well. Linguistically, Arabic is diglossic, i.e., it has a Standard (high) form and a Colloquial (low) form. The Standard form is learnt at school and is the language of print media and news T.V. stations such as Almayadeen, Aljazeera and BBC Arabic. It is also commonly used by educated Arabs in formal situations such as conferences and interviews. By contrast, the non-Standard Colloquial form is used in informal settings such as daily conversation with family members and friends, when shopping or talking about daily life issues. Each Arab country has its own general dialect and several sub-dialects existing in the different regions within the country.

Before social media, Arab people used Standard Arabic (SA) to communicate in writing. However, a new linguistic phenomenon has emerged among Arabs with the introduction of SMS on mobile phones, online discussion forums and social media sites such as Facebook, Twitter, Instagram, snapchat, WhatsApp and others. People, regardless of their age and educational level, started to use new forms and styles of communication such as slang and non-Standard Arabic, i.e., using their own dialects, when they communicate in writing on social media. Being the state of affairs, one would enquire about the negative effects of social media on SA as a result of those new forms of communications used by Arab users. Buri (2017) indicated that language is transforming. The Standard forms and grammatical rules of the languages have been deteriorating because of social media and the new communication forms that they promote. When writing a text, the punctuation marks are often neglected, and a communication that uses emoticons, emojis and pictures instead of words has become popular.

Like other languages, the Arabic language that is used on social media is changing. A review of the literature has shown a number of studies that investigated the effect of social media and online communication on the Arabic language. For example, a study by Warschauer,

El Said and Zohry (2006) examined English and Arabic language use in online communications among a group of young professionals in Egypt. They found that English is overwhelmingly used on the Internet and in formal e-mail communication, whereas a Romanized version of Egyptian Arabic, i.e., Colloquial Arabic (CA) written in Romanized script is extensively used in informal e-mail messages and online chats.

In a similar study with Jordanian undergraduate students, Al-Saleem (2011) examined how social media might affect the identities and language of young people in Jordan, specifically, the online written languages, Facebook's new concepts, and Facebook's impact on language and identity. Results of a survey with 44 undergraduate Jordanian students revealed that English is the dominant language used online. SA in Arabic Script was rarely used by any of the participants in their Facebook chatting. Rather, online communication on Facebook featured a new and unusual diglossia between a foreign language, English, and CA.

A more recent study by Chelghoum (2017) surveyed 78 Arab users of Facebook (32 English language Algerian students and 46 Facebook users from different Arab countries, ages between 18-34 years to find out their use of Arabic language in social media sites, specifically, Facebook, and to what extent it can affect SA and CA. The participants reported that they seldom use SA in Facebook online chat. English, CA and other foreign languages are mostly used. Arabic dialects dominate most online Facebook posts using both the Arabic alphabet and Romanized script.

In Egypt and UAE, Darwish (2017) investigated diglossia and language attrition prevailing in social media sites. He found that local Arabic is the dominant language used online among Arab youth. SA in Arabic Script is not common among Arab youth. Most youth who graduate from private schools prefer to use either a foreign language, a mixture of languages or CA in Romanized script. Darwish (2017) concluded that social media have a great impact on language use, language attrition and identity. Shifting from one language to another within the same conversation signals a change from one identity to another.

The effect of topic on the use of SA vs CA was the focus of a study by Khedher, Abandah, Al-Anati, Ababneh, Zghoul and Hattab (2015) in which they collected 8,538 political, social, economic, academic, religious, scientific, sports, and arts text samples from five forums. They analysed them according to several variables: (i) the language used: Arabic, English, or mixed; (ii) the alphabet used: Arabic, English, or Romanized script; (iii) the dialect used: Standard, Colloquial, or mixed; (iv) the style used: normal, metaphorical, cynical, vulgar, or other; (v) the use of symbols; and (vi) text cohesion level. Results showed that SA is common in serious topics such as religion and politics but CA and weak cohesion, with Romanized script are more common in casual social and academic topics.

A similar study by Qudah (2019) investigated the effect of topic, gender, age, and social context to identify the circumstances under which Arabic diglossia appears on Twitter and Facebook and their effect on SA usage. The researcher found that the younger generation tends to use written Colloquial Jordanian Arabic more than SA. SA is used among users of tweets and posts discussing political issues, news and religion, whereas CA is used for discussing informal topics related to fashion, sports, music and personal activities. Topic and age seemed to be the most important factors affecting the choice of linguistic code on social media. SA is used by the elite and educated people to show seriousness and value, whereas CA is used to discuss everyday activities and to interact with one another.

To summarize, prior studies that investigated the effect of social media on Arabic focused on a specific group of users namely the young generation in specific countries such as Jordan, Algeria, UAE, and Egypt. They investigated variables that determine the use of SA versus CA, English or Arabic, Arabic written in Arabic script or Arabic written in Romanized script. Their data and results were mainly based on questionnaire-surveys. None of the prior studies investigated linguistic features of social media discourse that may lead to Arabic

language attrition (deterioration) such as Arabic spelling errors, the use of foreign words (particularly English words) although Arabic equivalents exist, in addition to the common use of CA whether in Arabic or Romanized script. Therefore, the present study aims to show how written Arabic is changing due to social media. It will examine the effects of social media sites, specifically Facebook, on SA language attrition i.e., deterioration or decrease in Arabic language proficiency among educated Arab adult Facebook users, as exhibited in: (i) dominance of CA instead of SA; (ii) use of Romanized script rather than Arabic script; (iii) tendency to use foreign words, whether English or French, although Arabic equivalents exist, i.e., they mix Arabic with foreign words; and (iv) committing unprecedented spelling errors. In addition, the present study aims to find out why educated Arab adult Facebook users prefer to use those linguistic and paralinguistic devices and how they affect communication.

Findings of the present study will be based on a content analysis of posts, comments and spelling errors. A samples of adult Arab Facebook users will be surveyed to find out the reasons for this new socio-linguistic phenomenon on Facebook and whether it affects comprehension and hence communication.

Results about the negative effects of Facebook on Arabic language is especially important, as it will help Facebook users of all ages, in all Arab countries, discern how the different linguistic behaviours in Facebook communication are leading to Arabic language deterioration. In its present forms, the current Facebook posts have a little role in enriching the Arabic language content on the internet. Findings of this study will also draw the attention of educators, policymakers and linguists to an alarming reality and will provide evidence concerning the current status of SA on social media that shows the need for setting educational policies for enhancing SA usage and proficiency.

Data Collection

Sample of Facebook Users

A random sample of 100 male and female Facebook users who are native speakers of Arabic was randomly selected. The sample included Facebook users coming from different Arab countries: Egypt, Syria, Yemen, Saudi Arabia, Jordan, Palestine, Tunisia, Algeria and UAE. They speak a variety of Arabic dialects. They represent different age groups: 18 years to 60+ years old. Some are students studying in Arab countries and some are studying abroad and use English as a medium of instruction. Others are professionals: University professors, doctors, lawyers, teachers, executives, computer scientists and others who have a good knowledge of English.

A sample of 50 Facebook users was tested to find out their ability to decipher and comprehend Facebook posts written in CA.

Sample of Arabic Language Experts

A sample of 4 Arabic language professors was selected and used to judge and verify the spelling error corpus.

The Facebook Discourse Sample

For each of the 100 users, timeline posts and comments posted were collected over a week. Thus, the corpus of Facebook discourse included 2,450 posts and comments.

Facebook Misspellings Sample

A corpus of 1180 misspellings was collected from Facebook's timeline posts, comments, written in CA, in Arabic script. The majority of spellers have a college degree in different specialties: Education, law, agriculture, computer science, engineering, languages and translation, science, business, medicine and others. Some spellers are even professors and college students majoring in Arabic literature. Repetitious words with the same error were not included.

Questionnaire-Surveys

The sample of Arab Facebook users selected was surveyed and asked open-ended questions about the reasons for using CA, for transliterating Arabic messages in Romanized script, for inserting Arabic words in English posts and comments and English and French words in Arabic posts and comments, and for using invented spelling and making spelling mistakes. Responses are reported qualitatively.

The CA Comprehension and Spelling Test

A sample of 25 Facebook posts and comments written in Egyptian, Tunisian, Sudanese, and Jordanian Arabic were selected. Certain words and phrases in each vernacular were underlined. Another sample of 50 misspelled words from difference CA posts and comments in the corpus were selected. The subjects were asked to read the posts, comments, and misspelled words and explain their meanings.

Data Analysis

The unit of the Facebook discourse analysis chosen was the single post or comment regardless of its length and number of sentences contained in it. Each post or comment was analyzed and categorized in terms of the following: (i) language styles used (English, CA, SA, Romanized CA, CA written in Arabic script, mixed styles). Data in each category were tallied and percentages were computed for the whole sample. Results of the analysis are reported quantitatively and qualitatively.

Foreign words, whether transliterated in Arabic or written in English or French, for which Arabic equivalents exist were located in the Facebook discourse sample.

The sample of spelling errors selected was verified by a panel of 4 Arabic language professors. Then phrases were broken down into words. Words/phrases were broken down into initial particles, initial prepositions, attached prepositions, clitic pronouns, relative pronouns, and definite articles. Misspellings were also analyzed according to the following misspelling strategies used: Deletion, addition, insertion and conversion of graphemes or word parts.

Finally, Responses to the CA comprehension test and misspellings were recorded. Responses to the questionnaire-surveys were analyzed qualitatively.

For reliability purposes, data analyses were double-checked by 4 professors of linguistics and translation and compared to the author's analyses. Disagreements were solved by discussion.

Results

Linguistic Codes Used in Timeline Posts

Use of CA and Romanized Script

Content analysis of the samples of timeline posts and comments, in the present study, showed that 64% of the posts and comments by educated Arab adult Facebook users were written in informal, CA, i.e., their vernacular, as in example (1). Of all the posts and comments

- 2) Combining 2 words, a word and a detached particle, or preposition (28%) As in: بقالو، يدكتور، مواردكش، عنجد، فمان، بضمنلك، متقلقيش، مبيحصلش، مجاش، بدعيلك، بكتبلو، تسلميلي، قالي، مسالف، الفي، البلقطوا، البشحووا، شورائيه، حزباله، السنادي، الشخسامي بعتهالها، قالهاله، حدشاييف، منعندو، اليفتكر، اليسئلني، ندعيولهم، ولادايقي الهايكلو، لشايفينو،
- 3) Substitution of graphemes with the same sound (27%) as in: دهيت، دهري، تربيتج، اوي، العضيم، فطبعة، مطبوطة، نضيف، وضهرج، استعملتو، انو، اهلو، ح اقراهو، لاحقتو، لروحو، ضروف، ذبادي، لشايفينو، منعندو، الهايكلو، دايمين، كشافن، البلادن، شكران، شوكرن، حقيقتا، فئات، مصرياه، وخلصه، رده، هتبنا، مستنى، ومرضي، ويتامي، سبته، لقلت، لوفات، وقدمه، بقه، مسمه، اشاعه، حرجه، احلا، بتمنا، بقا، وبطنوا، وعمله، يتكلمه، بكرا، فكرا، للدرجادي، معانه، وربنه، ويحكنه، كلنه، عليه/علي.
- 4) Confusing graphemes (19%) as in: التوين والنون، الفتحة والهاء، التاء المفتوحة والمربوطة، الألف المقصورة والياء، والتاء المربوط، الألف والياء، الألف المقصورة والياء، الواو والهاء، المدة والهمزة، المد الألف المقصورة، والياء الفتحة والهاء، با النص، بأمتياز، فابرضو، كانوع، انتي، لكي، اشنتي، انتا، فابالله، ماماتك، حيليتي، خلالتني، رباتني، زوعماء، المنخفيض، قومت، ح اقراهو، ابوكوا، عليكوا
- 6) Shortening of long vowels (11%) as in: البحبهم، بتنجان، بذنجان، برحتك، بضمنلك، جعين، حببتي، حيين، داكترة، ديمة، ساعات، الشخسامي، الشخسعد، شورمه، الطوله، عوز، عيزه، فلحين، موضيع، وسيحيه ماعترفت، محدش، وميتحركش، ام اشوف، ي مدام، ياخونا، يولاد، مبلحش، يسمحك، يتولنا
- 7) Reduction of phrases and graphemes (10%) as in: لبنات، لجديد، لخارجيه، لخزة، لكبير، لمناصب، الفي، الهايكلو، مسالف، الهم، وقالي، ياله، الليل، يلا، نشالله، وانشالله، فاي، فخراب، لولاد، ملوا لساعات، الولاد لشايفينو، هل عم يقصف، اليفتكر، نشالله، وانشالله، يالله، مشالله.
- 8) Lengthening of short vowels (9%) as in: اليكي، انتقتي، انتي، قرأتي، قلتي، كنتي، لكي، يجزيكي، تسعومية، سوبا، عينيا، فيا، عليه، معايا، منذو، منك، هيروض عليا، بي سلام، توفار، رائس، رائيك، شوكرن، فا احنا، فخوفت، لا يسماح، مودرس، فا أكيد.
- 9) Faulty Hamza (glottal stop) (5%) as in: اتفاجئت، اسئل، اقرووا، بداعت، البذائة، بنلك، التئمل، نلبي، رائيك، سائت، شورائيه، عبال، فداء، القبائل، المرء، مفاجاة، الموعنين، نتفاجي، وتسو، وشئنه.
- 10) Detachment of words and attached particles and prepositions (3.5%) as in: ف ، ف اعمل: ع الشجرة، من ذو(منذ) أنا، م عقلت، عل أكيد،

Effect of Using CA and Unconventional Spelling

The subjects tested were able to decipher, comprehend and correctly explain less than 10% of the test items. They had difficulty deciphering misspelled words and phrases and understanding what some users are trying to say in their vernacular as in examples (10-16). When two different words are spelled the same, and when the same word is spelled differently by different users, this will cause ambiguity, confusion, and difficulty in understanding what some users are trying to say in their local dialect.

- (10) صغيرات ماتو من جرة اهمال طبي، دواء مقطوع، معدات طبية مفقودة،.. لواحد يحب يقدم بيركوه و يندموه و يعيفوه ويتيقروه و يكرهه فروحو. خليه ياقف وحدو لتونس
- (11) اقل حاجة احتراما للذات البشرية موش كرذونة لا و يزيد يقولولهم خلصوا معاليم الصبيطار
- (12) حكاية عادية انا حماتي و حمويا هوما يحبونا نجيبولهم الجلبانه و الخضرة الاوراق باش يفصوها و ينضفوها كي نقولو لا يتغشو يحبو يوسعو باها بالهم نهار طويل معندو علاش نراوها بالخايب علاقل يوسعو بالهم
- (13) خويا راه مريض ادعيولو بالشفاء لعلها ساعة استجابة 😞 😞
- (14) الله يخربيت التكنولوجيا فين الناس فين الحب والسوائل
- (15) البعد الي بييجي من غير زعل زى الم ونذال في لحظه 😞
- (16) المرة دي نلاقي نسيينا الما شفناهو 😞 سلامنا لاحمد وعمر اكون هساني زاتو 😞 و عضي سلمى لمن تبكي عشان تنزكرني

Colloquial posts and comments written in Romanized script slow down reading and obstruct comprehension especially in the case of adult readers who are not familiar with the numbers used to substitute phonemes for which English graphemes do not exist as in examples (2 & 6) above.

Why Arabic Facebook Users Use CA and Unconventional Spelling

The subjects surveyed reported that it is easier for them to express themselves in slang and CA, i.e., their vernacular or local dialect, rather than SA, which is more formal and inappropriate for casual communication and conversation. They feel they are talking with each other, not writing. They think that it is more suitable to use CA than SA as they like to write the way they speak. They also prefer to express their opinions in the spoken language which is the vernacular, not SA.

The participants added that when they write something on Facebook, they are in a hurry, they write posts on their mobile phone casually, and they do not think about spelling and grammar. They do not revise or edit what they write neither before nor after they post it, as they feel that nobody checks what they write nor picks on their grammatical and spelling mistakes.

Some specialists such as medical doctors or preachers believe that they would reach a wider audience when they deliver information in the vernacular and write the way most Arab Facebook community writes as it is easier to comprehend by people from different backgrounds and educational levels.

Few participants indicated that they write their posts and comments in CA because when they use SA, their friends mock them and think they are using SA to show off.

Some participants expressed their inability to use SA as they have difficulty figuring out the correct spelling and grammar, even though Arab students use SA in grade school for 12 years and study all content courses such as religion courses, history, geography, social studies, religion math, science courses in SA, in addition to Arabic poetry, grammar, reading, and composition courses in every grade level.

Why Arabic Facebook Users Use Foreign Words Although Arabic Equivalents Exist

Responses to the questionnaire survey showed that Adult Arab users of Facebook insert English words in CA discourse on Facebook as a habit. Some said, "*It is fashionable and common practice nowadays*". It gives others the impression that they are high class, educated and civilized. Use of foreign words is due to the use of English in the workplace or because it is their specialty. Maha said: "*It is very common nowadays to use such words. Everybody writes like that on social media.*" Noura added: "*In college I use English all the time. I unconsciously insert English words when I write on Facebook.*" In the work place they mix Arabic and English and Arabic, so they do the same when they write on Facebook.

In this day and age, it is more prestigious/glamorous to use foreign words such as: *post, profile, update, share, comment, mention, hashtag* in their Facebook discourse. Maha indicated that some people like to show off and brag about knowing English. "*Knowing English is prestigious in our society. It conveys a higher status in the society*", Sara said. People like to imitate T.V. anchors, artists and singers who code-mix and insert foreign words in their speech and in their posts on social media.

The insertion of foreign words in Arabic discourse reflects poor knowledge of and lack of proficiency in SA. Some said that they are not familiar with Arabic equivalents to the English words they use. Other users do not work hard to search for Arabic equivalents in a dictionary.

Discussion

Linguistic Codes Used

Findings of the present study are consistent with findings of other prior studies such as Al-Saleem (2011) and Darwish (2017) who found that informal CA is dominant in Facebook

discourse. Even in languages that are not diglossic such as Dutch, Verheijen (2017) found that youth nowadays use language that is more informal, more expressive, more concise and more playful in their online communication. They use informal slang filled with abbreviations, phonetic respellings and emojis in their social media posts, and use the Standard language at school and in formal settings.

However, findings of this study are inconsistent with findings of two studies by Warschauer, El Said & Zohry (2006) and Chelghoum (2017) who found that English is overwhelmingly used on the Web and in formal e-mail communication and SA is rarely used in online communication and social media. In this study, 14% of the Facebook post and comment corpus were in SA. Like Khedher, Abandah, Al-Anati, Ababneh, Zghoul and Hattab (2015) and Qudah's (2019) studies, SA is used in timeline posts by the elite to post serious topics such death announcements, supplications, thesis defense announcements, poetry, literary excerpts and stories, and news headlines, whereas CA is used to state their opinions about casual social topics, daily activities, jokes and to respond to one another.

Facebook Spelling

Findings of the present study have shown drastic spelling weaknesses on Facebook by adult users such as: Confusing graphemes with the similar sounds, connecting several words together as one word, ignoring the pauses between them, deleting final and middle vowels, deleting particle and preposition vowels, reducing the definite article "/al-/, reducing double letters and relative pronoun /illi/, substituting long vowels by short ones and vice versa, confusing graphemes with the similar sounds, connecting several words together as one word, ignoring the pauses between them. Some graphemes are no longer used. The same word or phrase, in the same dialect, is spelled differently by different users.

These findings about spelling weakness by adult Arab Facebook users are inconsistent with findings of a study by Verheijen (2017) who found that an active use of WhatsApp had a direct, positive influence on spelling in the written schoolwork of Dutch teenagers. Teenagers made fewer spelling mistakes. As a matter of fact, young people who use social media in an active and linguistically creative way write higher quality school texts. Her study revealed positive connections between the use of social media and how well students write at school. There were even more of these connections among people with a lower educational level than among those with a higher educational level. She concluded that, if used well, social media can stimulate young people's language skills if provided that they type a lot themselves, turn off the auto-correction and word predictor functions on their cell phones and if they are creative with language.

It seems that the non-Standard Arabic spelling used on Facebook, in the present study, is undergoing a simplification process. Users do not seem to recognize word boundaries, cannot connect phonemes with the graphemes they represent and cannot distinguish vowel length in their spoken dialect. Today's Arab adult Facebook users seem to follow the Zipf's principle of the least effort, i.e., the expenditure of the least amount of effort to performing the writing task on Facebook. Some graphemes are no longer used. Writers connect several words together as one word, ignoring the pauses between them. They delete final and middle vowels, delete particle and preposition vowels, reduce the definite article "/al-/, reduce double letters and relative pronoun /illi/, substitute long vowels by short ones and vice versa. Some graphemes are no longer used.

In this respect, Buri (2017) indicated that when texting, most people do not pay attention to correctness. The amounts errors she found in her data is considered evidence that the language deterioration can be pointed out in the online communication of the residents of Miskolc. She concluded that some mistakes originated from the person's poor grammatical knowledge.

Respondents indicated that electronic writing usually includes mistakes, and people hardly ever proofread their messages before sending or posting them on social media.

Code Mixing

Results of the present study about inserting foreign words in Arabic Facebook posts and comments, although Arabic equivalents exist, are consistent with results of a study by Jaran & Al-Haq (2015) that revealed that university students in Jordan mix CA with English terms and expressions. In addition, Mustafa & Al-Khatib (1994) noted that mixing Arabic and English in science lectures at Jordanian universities is a prominent feature of the lectures. In Lebanon, faculty working at an American-style institution are unaware that they code-switch contrary to what non-participant observations showed. Instructors code-switch in class and students code-switch to learn better (Bahous, Nabhani & Bacha, 2014).

As in Kamwangamalu's (1989) study, Arab adult Facebook users in this study insert foreign words in Arabic discourse as a social class identity, education and modernization marker.

Bahous, R., Nabhani & Bacha (2014) pointed out that code-mixing has become the subject of much concern in Arab academic contexts as it is negatively affecting students' language use and learning. It has been a subject of concern in Arab print media as this phenomenon has spread to literature, commercials and T.V. shows and others as well.

Conclusion and Recommendations

Findings of the present study showed some common features of Facebook language used by Arab users which is mainly characterized by the extensive use of CA written in Arabic script and Romanized CA. Users insert Romanized Arabic words in English messages and English and/or French words in Romanized CA posts and comments. Slang words are spelled in invented ways such as using stretches of Arabic and/or English long vowels within a word and stretches of the same punctuation marks or combinations of different ones as paralinguistic devices to show emotions and emphasis.

Although, this new linguistic phenomenon is not unique to Arabic-speaking users on Facebook and is also common among young adults using other languages such as English, Chinese and Japanese, these new forms of Facebook communication may weaken the users' linguistic competence and performance in SA, who might resist using Arabic script and SA spelling and structure in communication in the future. Calls for Romanizing the Arabic language script and normalizing the use of the Colloquial form in spoken and written communication might be encouraged in the future. Therefore, raising young Arab's awareness of these linguistic phenomena by the media, by setting new educational and linguistic policies for reinforcing the use of SA among the young generation, especially college students is of ultimate importance.

Mixing foreign words with CA, in Facebook discourse, is a serious issue. It is annoying to the reader and it distorts the Arabic language especially when users apply Arabic inflectional and derivational morphology such as tense markers, plural and feminine suffixes to foreign words (كومات، حنايدنتقاي). Sometimes, this kind of discourse hinders comprehension especially in readers who do not know English or do not know English medical terminology when they read a medical post written in CA. Young people exposed to this hybrid language will learn a distorted language that will affect their linguistic development. They will learn to write without acquiring important Arabic words. The young generation need to build their lexical repertoire in Arabic. If they get into the habit of code-mixing, Arabic words substituted by foreign words will die.

To help educated Arabs maintain their Arabic language and to counteract the phenomenon of code-mixing, students should be encouraged to watch Arabic T.V. news channels as they use SA and make lists of words and their Arabic equivalents (glossary). They can also look up meanings of words that they do not know in Al-Maany Online Dictionary. Schools and universities should raise students' awareness of the importance of using Arabic equivalents through campaigns, symposia and contests that encourage the use of Arabic only. Special Facebook pages and hashtags may be used to familiarize the young generation with Arabic equivalents to foreign words commonly used in Arabic discourse on Facebook. A website with online dictionaries can be established to help adult Arabic Facebook users find Arabic equivalents to foreign words. Arab governments and Ministries of Information should pass laws to protect and preserve the Arabic language and reduce the use of foreign words.

Experts should carefully confront Arabic posts written in Romanized script and mix of languages and start a campaign to encourage the use of Arabic written in Arabic script and abandoning the used of Romanized Arabic by Facebook users, considering its potentially harmful impact in future.

Steps towards reinforcing the Arabic language in general and Arabic spelling, may be taken by Arab Ministries of Education, following the steps of Saudi Ministry of Education¹, which has issued a directive for teaching Arabic penmanship and spelling starting from elementary school grades to enhance students' Arabic language skills.

Further studies that investigate the effects of using the online linguistic forms described in the present study on college and high school students' academic achievement, academic writing and proficiency level in Arabic are needed.

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